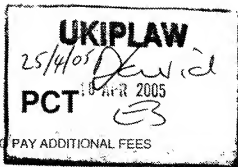


# PATENT COOPERATION TREATY



From the INTERNATIONAL SEARCHING AUTHORITY

To:

IBM UNITED KINGDOM LIMITED  
Intellectual Property Law  
Attn. Litherland, David Peter  
Hursley Park  
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INVITATION TO PAY ADDITIONAL FEES

(PCT Article 17(3)(a) and Rule 40.1)

**EINSCHREIBEN**

Applicant's or agent's file reference <b>ARC030051</b>	Date of mailing (day/month/year) <b>12/04/2005</b>
International application No. <b>PCT/EP2004/052884</b>	PAYMENT DUE within 1 month from the above date of mailing
International filing date (day/month/year) <b>09/11/2004</b>	

Applicant

**INTERNATIONAL BUSINESS MACHINES CORPORATION**

**1. This International Searching Authority**

- (i) considers that there are 4 (number of) inventions claimed in the international application covered by the claims indicated ~~below~~ on the extra sheet:

and it considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated ~~below~~ on the extra sheet:

- (ii) ☒ has carried out a partial international search (see Annex) ☐ will establish the international search report on those parts of the international application which relate to the invention first mentioned in claims Nos.:  
see annex

- (iii) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid

**2. The applicant is hereby invited, within the time limit indicated above, to pay the amount indicated below:**

EUR 1.550.00 x 3 = EUR 4.650  
 Fee per additional invention      number of additional inventions      total amount of additional fees

Or, \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_

The applicant is informed that, according to Rule 40.2(c), the payment of any additional fee may be made under protest, i.e., a reasoned statement to the effect that the international application complies with the requirement of unity of invention or that the amount of the required additional fee is excessive.

3. ☐ Claim(s) Nos. \_\_\_\_\_ have been found to be unsearchable under Article 17(2)(b) because of defects under Article 17(2)(a) and therefore have not been included with any invention.

Name and mailing address of the International Searching Authority

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Authorized officer:

**Katrin Sommermeyer**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5,7-9,21

determining access rights to trusted dictionary  
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2. claim: 6

using security chip  
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3. claims: 10-11

handling copy-protected media  
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4. claims: 12-20

designing and debugging application  
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The application lacks unity within the meaning of Article 17 (3)(a) PCT for the following reason:

The single general concept linking together the claims 1-11; 12-20 is a method for running a tamper-resistant application in a trusted environment.

This concept is generally known in the prior art.

Furthermore, the single general concept linking together the claims 1-5, 7-9, 21; 6; 10-11 is that the method comprises all features listed in claim 1.

But, a method comprising all these features is known in the prior art, e.g. from a UNIX workstation running JAVA, see SCOTT OAKS: "JAVA SECURITY", ISBN 0-596-00157-6 (citations refer to this document):

- defining a trusted virtual machine environment (a JAVA virtual machine provides security and is therefore to be trusted)
- that contains a trusted dictionary for protecting data (the file system, using the UNIX permission system and the security manager of JAVA, is already a trusted dictionary. Furthermore, databases are commonly used to further extend the functionality, if needed)
- verifying the integrity of the application (commonly done with signed classes, see pg. 272)
- if the application is tampered with, the trusted virtual machine environment prevents the application from accessing secrets in the trusted dictionary, thus disabling the normal operation of the application (see also pg. 272, 273)

Therefore the single general concept is not new and not inventive, contrary to Rule 13.1 PCT.

The special technical features of the groups of claims over said prior art are:

1. determining access rights to trusted dictionary

2. using security chip
3. handling copy-protected media
4. designing and debugging application

It is clear that there is no technical relationship among these technical features, contrary to Rule 13.2 PCT

**Annex to Form PCT/ISA/206  
COMMUNICATION RELATING TO THE RESULTS  
OF THE PARTIAL INTERNATIONAL SEARCH**

International Application No  
**PCT/EP2004/052884**

1. The present communication is an Annex to the invitation to pay additional fees (Form PCT/ISA/206). It shows the results of the international search established on the parts of the international application which relate to the invention first mentioned in claims Nos.:

see 'Invitation to pay additional fees'

2. This communication is not the international search report which will be established according to Article 18 and Rule 43.

3. If the applicant does not pay any additional search fees, the information appearing in this communication will be considered as the result of the international search and will be included as such in the international search report.

4. If the applicant pays additional fees, the international search report will contain both the information appearing in this communication and the results of the international search on other parts of the international application for which such fees will have been paid.

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SCOTT OAKS: "java security" May 2001 (2001-05), O'REILLY, SEBASTOPOL, CA95472, XP002321663 page 261 - page 287 page 309 - page 310 -----	1-5, 7-9, 21
A	US 2002/184520 A1 (BUSH WILLIAM R ET AL) 5 December 2002 (2002-12-05) abstract -----	1-5, 7-9, 21
A	EP 0 875 814 A (SONY CORPORATION) 4 November 1998 (1998-11-04) abstract -----	1-5, 7-9, 21
A	US 2003/135746 A1 (ABBOTT PAUL HARRY ET AL) 17 July 2003 (2003-07-17) abstract -----	1-5, 7-9, 21

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"S" document member of the same patent family

# Patent Family Annex

Information on patent family members

International Application No

PCT/EP2004/052884

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2002184520	A1	05-12-2002	EP 1430374 A2 WO 02097594 A2	23-06-2004 05-12-2002
EP 0875814	A	04-11-1998	JP 10301773 A CN 1208193 A ,C EP 0875814 A2 TW 405096 B US 6647495 B1	13-11-1998 17-02-1999 04-11-1998 11-09-2000 11-11-2003
US 2003135746	A1	17-07-2003	NONE	